

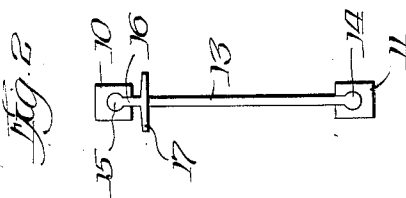
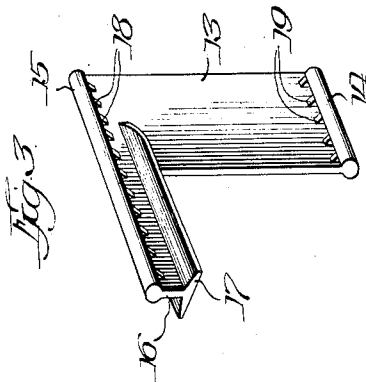
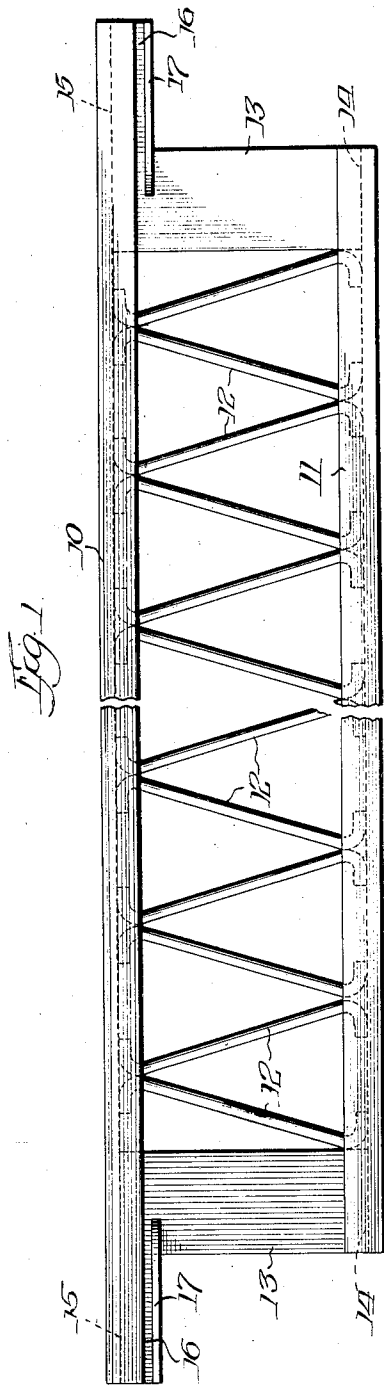
Dec. 15, 1925.

1,565,879

W. E. WHITE

BUILT UP TRUSS

Filed April 17, 1925



Witness:
Ed. A. Brown

Inventor
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By *Chas. Murray* Atty

Patented Dec. 15, 1925.

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UNITED STATES PATENT OFFICE.

WILLIAM E. WHITE, OF CHICAGO, ILLINOIS, ASSIGNOR TO KALMAN STEEL COMPANY,
OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

BUILT-UP TRUSS.

Application filed April 17, 1925. Serial No. 23,857.

To all whom it may concern:

Be it known that WILLIAM E. WHITE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, has invented certain new and useful Improvements in a Built-Up Truss, of which the following is a specification:

My invention relates to structural trusses and particularly to an improvement on the construction illustrated in my copending applications, Serial No. 738,623, filed Sept. 19, 1924, and Serial No. 730,825, filed August 8, 1924. This invention has to do more specifically with the end connections between the upper and lower chords of the trusses.

One of the objects of my invention is to provide a strong, simple and rigid member for joining the ends of the chords of the truss without the necessity for bending the bottom chord to bring it into proximity to the upper chord. The desired result is accomplished by utilizing a member consisting essentially of a web and a bead or head extending along its upper and lower margins the bead being received within the channel of the chords and firmly held by compressing the metal of the chords therearound. I provide a seat by extending the upper portion of the web, the upper bead or head being continuous, the seat being provided by means of foot flanges that are integral with the web extension.

The invention will be better understood by reference to the accompanying drawings, in which:

Fig. 1 is a side elevation of a truss constructed in accordance with my invention.

Fig. 2 is an end view of the truss, and

Fig. 3 is a perspective view of one of the end connections.

The truss of my invention comprises top and bottom chords 10—11 of duplicate form, the top chord being considerably longer than the bottom chord. The chord elements are in the form of channels, the specific construction of which is best illustrated in my copending application Serial No. 738,623. The struts 12 are oppositely diagonally disposed, the ends of the struts being rebent at an acute angle, the bent portions lying within the channel in the chord. After the sides of the channels are pressed inwardly, the struts are firmly held in position.

An end connection is provided in the form

of a casting having a substantial web 13, the bottom margin of which has a head or bead 14 continuous throughout the extent of the web. A similar bead 15 is provided on the upper margin of the web and this bead extends throughout the length of the web and of the extension or projection 16 thereof. The lower portion of the projection 16 is provided with lateral flanges 17 constituting a seat, adapting the end of the truss to be rested on a beam or girder as required.

As a means for stiffening the structure, and also as a means for securely anchoring the end connection in the channel of the chords, I provide the spaced fillets, 18, 19 along the top and bottom of the web at the junction thereof with the beads. As the sides of the chord elements are pressed into engagement with and around the beads, the metal is caused to flow around the fillets or braces thereby supplementing the frictional engagement with a mechanical engagement.

An end connection constructed as described may be assembled simultaneously with the assembling of the chords and struts and when completed the beam will be found to be unusually rigid and to utilize the full strength of the material.

While I have described an end connection of cast form, it will be understood that it may be forged or otherwise constructed as desired. The essential elements of the device are a substantial web or its equivalent, and a projection, preferably of the general form of T-rail, adapted to act as a seat.

I claim:

1. An end connection for the chords of a truss, comprising a web of substantially the depth of the truss, the upper and lower marginal edges of the web being thickened, and an extension from one side edge providing a flanged seat.

2. An end connection for the chords of a truss, comprising a web the upper and lower margins of which are upset to form beads, a portion of the web at the upper end being extended and provided with lateral flanges to form a seat.

3. A built-up truss comprising in combination, channel shaped bottom and top chords, diagonal struts the ends of which are held in the channels by compressing the sides thereof, and an end connection for said chords, said connection comprising a web the upper and lower margins of which are

beaded and adapted to be received within the flanges of the channel chords, and a flanged longitudinal extension of said web adapted to provide a seat between the upper and lower limits of the web.

- 5 4. A built up truss comprising in combination, channel shaped bottom and top chords, diagonal struts the ends of which are held in the channels by compressing the sides thereof, and an end connection for said
10 chords, said connection comprising a web the upper and lower margins of which are beaded and adapted to be received within the flanges of the channel chords, and an integral
15 projection from the upper portion of

said web, said projection having at its upper extremity a continuation of the bead on the web and at its lower extremity a foot flange providing a seat.

5. An end connection for the chords of 20 a truss, comprising a web the upper and lower margins of which are upset to form beads, a portion of the web at the upper end being extended and provided with lateral flanges to form a seat, and spaced fil- 25 lets at the junction of the web and beads.

In testimony whereof I have affixed my signature.

WILLIAM E. WHITE.